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**DERWENT-ACC-NO:** 

2002-452197

DERWENT-WEEK:

200302

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TITLE:

Method for manufacturing capacitor of semiconductor

device

INVENTOR: AHN, B G; JU, G C; JOO, G C

PATENT-ASSIGNEE: HYNIX SEMICONDUCTOR INC[HYNIN]

PRIORITY-DATA: 2000KR-0036639 (June 29, 2000)

**PATENT-FAMILY:** 

PUB-NO

PUB-DATE

LANGUAGE

AGE PAGES

MAIN-IPC

KR 342873 B

July 2, 2002

N/A

000 H01L 021/8242 001

KR 2002002157 A

January 9, 2002

N/A

H01L 021/8242

**APPLICATION-DATA:** 

PUB-NO

APPL-DESCRIPTOR

APPL-NO

APPL-DATE

KR 342873B

N/A

2000KR-0036639

June 29, 2000

KR 342873B

Previous Publ.

KR2002002157

N/A

KR2002002157A

N/A

2000KR-0036639

June 29, 2000

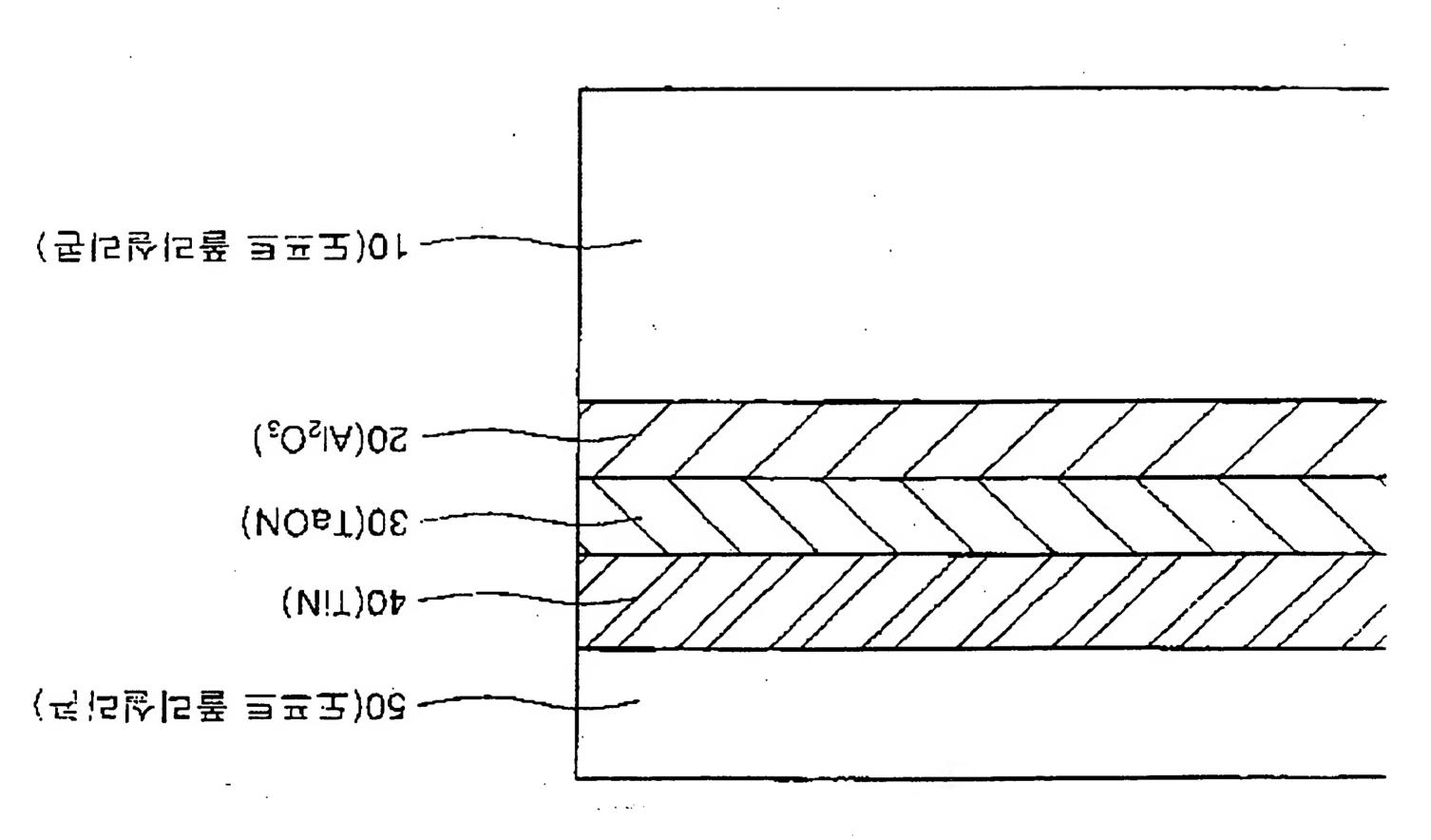
INT-CL (IPC): H01L021/8242

ABSTRACTED-PUB-NO: KR2002002157A

BASIC-ABSTRACT:

NOVELTY - A method for manufacturing a capacitor of a semiconductor device is provided to minimize impurities generated inside an evaporated layer as compared with a conventional metal organic chemical vapor deposition(MOCVD) method, by depositing an Al2O3 layer by an atomic layer deposition(ALD) method and by depositing a TaON layer by a plasma-type chemical vapor deposition(CVD) method for densification of a layer quality.

DETAILED DESCRIPTION - A lower electrode(10) made of a conductive material is formed. An Al2O3 layer(20) is evaporated on the lower electrode to form the first dielectric thin film by an ALD method. An annealing process is performed regarding the first dielectric thin film. The TaON layer(30) is deposited on the first dielectric thin film to form the second dielectric thin film by a plasma-type CVD method. An upper electrode(40,50) made of a conductive



material is formed on the second dielectric thin film.

CHOSEN-DRAWING: Dwg. 1/10 ---

TITLE-TERMS: METHOD MANUFACTURE CAPACITOR SEMICONDUCTOR DEVICE

**DERWENT-CLASS: L03 U11** 

CPI-CODES: L04-C11C2; L04-C14A; L04-C16A;

EPI-CODES: U11-C18B5;

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C2002-128674